第一題:

Show that (1) and (2) are equivalent.

第二題:

Show all the eigenvalues of the covariance matrix Σ are nonnegative.

第三題:

Show that the solution of (4) must be y = u1.

第四題:

(a) use the mean and the principle component of other data to calculate your number.

(b)

(1) Plot the figure of ti , zi , and their principle components, as Figure 1.

(2) Compare the results with (a). Will they give the same numbers?

(3) Discuss the reasons.

第五題:

(1) proof of correctness of your algorithm.

(2) use the given data to show how your algorithm works pictorially.

應繳交檔案: 學號_姓名.zip

學號_姓名.zip內含: 學號_姓名.pdf, four.py(第四題的code), five.py(第五題的code)